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**UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF CALIFORNIA**

IN RE: INCRETIN-BASED
THERAPIES PRODUCTS LIABILITY
LITIGATION

Case No. 13-md-2452-AJB-MDD

**DEFENDANTS' REPLY IN
SUPPORT OF THEIR MOTION FOR
SUMMARY JUDGMENT BASED ON
PREEMPTION**

Date: October 20, 2020
Time: 9:00 AM
Courtroom: 4A
Judge: Hon. Anthony J. Battaglia
Magistrate: Hon. Mitchell D. Dembin

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INTRODUCTION

After years of discovery, three rounds of briefing, appeal, and the Supreme Court’s confirmation in *Albrecht* that preemption is a legal question for judges to decide, the basis for preemption is even stronger today than it was when this Court first granted defendants’ motion for summary judgment. Adding a pancreatic cancer warning to the labeling of incretin-based therapies would “irreconcilably conflict,” *Merck Sharp & Dohme Corp. v. Albrecht*, 139 S. Ct. 1668, 1679 (2019), with the FDA’s considered conclusion that “a warning or other reference to [pancreatic cancer] is unsubstantiated,” *In re Incretin-Based Therapies Prods. Liab. Litig.*, 142 F. Supp. 3d 1108, 1132 (S.D. Cal. 2015).

Plaintiffs’ arguments in response are recycled: (1) preemption is available only where the FDA has rejected a manufacturer’s request for a labeling change; (2) the FDA’s conclusions about the pancreatic safety of incretin-based therapies do not reflect the Agency’s “official position,” are preliminary, and were not reached pursuant to congressionally delegated authority; and (3) the FDA was not aware of purported “material safety information” that might have altered the Agency’s conclusions about the pancreatic safety of one or more of the products at issue in this litigation. These arguments are as bootless now as they were in 2015.

First, this Court correctly found that the FDA’s evaluation of the pancreatic safety of incretin-based therapies was “more thorough than a review of relevant data offered in connection with a CBE and PAS,” and the “FDA’s conclusions should not be subject to reevaluation simply because they were not articulated in connection with a CBE or PAS rejection.” *Id.* at 1125–26. That is consistent with *Albrecht*, which makes clear that there are multiple ways by which the Agency can express its disapproval of a warning, and “make[s] only the obvious point that, *whatever the means the FDA uses* to exercise its authority, those means must lie within the scope of the authority Congress has lawfully delegated.” 139 S. Ct. at 1679 (emphasis added).

1 *Second*, this Court correctly found that the Agency’s actions were “squarely
2 within the FDA’s congressionally delegated authority to regulate the safety of
3 prescription drugs” and that “the Assessment and citizen petition response constitute
4 the FDA’s official position regarding pancreatic safety.” 142 F. Supp. 3d at 1126–27.
5 Nothing in *Albrecht* changes that conclusion.

6 *Third*, this Court’s task is to determine for each manufacturer whether “newly
7 acquired information” exists as to its product that would have warranted that
8 defendant’s submission of a CBE. *Albrecht* confirms that, as a threshold matter,
9 “manufacturers cannot propose a change that is not based on reasonable evidence.”
10 139 S. Ct. at 1679. Whether there is “newly acquired information” under 21 C.F.R.
11 § 314.70, the regulation setting forth the requirements for a CBE, is a threshold
12 question. If the purported “new safety information” plaintiffs identify does not
13 qualify as “newly acquired information,” preemption applies independent of the
14 Court’s “clear evidence” analysis. *See Albrecht*, 139 S. Ct. at 1679; *Wyeth v. Levine*,
15 555 U.S. 555, 568 (2009). The purportedly “new” information is not new to the FDA;
16 plaintiffs do not offer expert or other evidence that it would be scientifically material
17 to the FDA’s decision making; and plaintiffs’ own general causation experts do not
18 suggest it reflects “reasonable evidence of a causal association,” the regulatory
19 threshold for adding a warning to FDA-approved labeling. 21 C.F.R.
20 § 201.57(c)(6)(i).

21 In short, this Court should grant summary judgment based on preemption for
22 two reasons—first, because adding a pancreatic cancer warning to the labeling of
23 incretin-based therapies would “irreconcilably conflict” with the FDA’s conclusion
24 that such a warning is not substantiated by available scientific information; and
25 second, because there was not “newly acquired information” justifying a label change
26 application in the first place.

ARGUMENT

I. Preemption Is Not Limited to Instances Where the FDA Has Rejected a CBE or PAS.

This Court previously considered and “reject[ed] Plaintiffs’ position that Defendants cannot establish preemption absent express rejection of a proposed labeling change.” 142 F. Supp. 3d at 1124; *see also id.* at 1125 (“the FDA’s review of pancreatic safety was *more thorough* than a review of relevant data offered in connection with a CBE or PAS”¹). Plaintiffs renew that argument, claiming that *Albrecht* “placed new limitations on how a drug company can establish preemption,” namely by limiting its application to instances where a drug manufacturer has requested a labeling change.²

That is incorrect. *Albrecht* did not place “new limitations” on the methods by which preemption can apply, but expressly noted that “[t]he question of [the FDA’s] disapproval ‘method’ is not now before us.” 139 S. Ct. at 1679; *see also Dolin v. GlaxoSmithKline LLC*, 951 F.3d 882, 891 (7th Cir. 2020) (“*Albrecht* provided important guidance but did not break new ground”). It is not surprising, of course, that *Albrecht* includes rejection of a manufacturer-proposed labeling change as one disapproval method—that is, after all, specifically what the underlying facts in that case involved, 139 S. Ct. at 1675—but the Supreme Court also acknowledged that there is more than one method by which the Agency can disapprove of a warning, so long as “*whatever the means* the FDA uses to exercise its authority, those means ... lie within the scope of the authority Congress has lawfully delegated.” *Id.* at 1679. In fact, only a few pages after contending that preemption is unavailable without a manufacturer-proposed labeling change, Opp’n at 13, plaintiffs concede that the

¹ All emphases are added unless otherwise indicated.

² Plaintiffs’ Opposition to Defendants’ Motion for Summary Judgment on the Affirmative Defense of Preemption (“Opp’n”) at 13.

1 Supreme Court specifically identified other agency actions that “can establish
2 preemption,” *id.* at 19 (citing *Albrecht*, 139 S. Ct. at 1679). In other words, as
3 plaintiffs correctly point out, a “[f]ormal rejection of [a] warning label” is only one of
4 several bases for preemption identified by the Court. *Id.*

5 Plaintiffs’ opposition also fails to acknowledge, much less respond to, cases
6 decided after *Albrecht* recognizing that preemption can apply in contexts other than
7 the submission and rejection of a CBE or PAS. *See, e.g., Cervený v. Aventis, Inc.*, 783
8 F. App’x 804, 808 n.9 (10th Cir. 2019) (defendant need not demonstrate that the FDA
9 “would have rejected any unilateral label change under the CBE regulation” where it
10 had a “separate avenue” in the FDA’s unequivocal rejection of a citizen’s petition
11 “advocating for the warning that the [plaintiffs] now assert”); *Ridings v. Maurice*, 444
12 F. Supp. 3d 973, 998 (W.D. Mo. 2020) (“FDA’s continued inaction” “in light of the
13 known issues and the ongoing give-and-take between [defendant] and the FDA on
14 these issues ... represent[ed] clear evidence under these facts”); *Thomas v. Bracco*
15 *Diagnostics*, 2020 WL 1016273, at *10 (W.D. La. Feb. 27, 2020) (finding “clear
16 evidence that FDA would not have approved a warning” based on the Agency’s
17 conclusions that scientific data did not justify a “causal relationship”); *Smith v. GE*
18 *Healthcare Inc.*, 2020 WL 1880787, at *7 (W.D. La. Mar. 31, 2020).

19 The concurring opinion in *Albrecht* correctly points out that the FDA’s duty to
20 regulate safety information in drug labeling under 21 U.S.C. § 355(o)(4)(A) “does not
21 depend on whether the relevant drug manufacturer, as opposed to some other entity or
22 individual, brought the new information to the FDA’s attention.”³ 139 S. Ct. at 1684
23 (Alito, J., concurring); *see also, e.g., Cervený*, 783 F. App’x at 808 n.9 (finding
24 preemption based on FDA rejection of a citizen petition); *Dobbs v. Wyeth Pharm.*, 797
25 F. Supp. 2d 1264, 1274, 1277 (W.D. Okla. 2011) (finding preemption based in part on

26
27 ³ § 355(o)(4)(A) requires, inter alia, FDA to notify the drug manufacturer of new
28 safety information FDA becomes aware of and determines should be added to a
drug’s labeling.

1 rejection of multiple citizen petitions). Plaintiffs say this carries “no weight
2 whatsoever.” Opp’n at 13. That, too, is incorrect. The concurring opinion is
3 persuasive authority consistent with the majority. *See, e.g., United States v. Garcia*,
4 877 F.3d 944, 950 n.4 (10th Cir. 2017) (“Although a concurring opinion is not binding
5 on us, we may consider it for its persuasive value.”); *Mont. Env’tl. Info. Ctr. v. Stone-*
6 *Manning*, 766 F.3d 1184, 1190–91 (9th Cir. 2014) (adopting and expanding on a rule
7 originating in Justice O’Connor’s concurrence in *Reno v. Catholic Social Services*,
8 509 U.S. 43, 67 (1993)). And plaintiffs concede that, in keeping with the concurrence,
9 *Albrecht* listed FDA action pursuant to § 355(o)(4)(A) as one of the “[o]ther agency
10 actions carrying the force of law” that “can establish preemption.” Opp’n at 19 (citing
11 *Albrecht*, 139 S. Ct. at 1679).

12 As this Court held in 2015, because the FDA conducted an evaluation that was
13 “more thorough than a review of relevant data offered in connection with a CBE and
14 PAS,” the Agency’s “conclusions should not be subject to reevaluation simply
15 because they were not articulated in connection with a CBE or PAS rejection.” 142 F.
16 Supp. 3d at 1125–26. Plaintiffs’ own regulatory expert, Dr. Alexander Fleming,
17 acknowledged that the FDA’s evaluation was “unprecedented,” that it “reflect[ed] a
18 very robust evaluation that went on for a significant period of time,” and that “[i]t
19 would be a little absurd” for the FDA to endorse a pancreatic cancer warning that its
20 “comprehensive evaluation” found was inconsistent with available scientific data.⁴

21 **II. FDA’s Actions Are Squarely Within Its Congressionally Delegated** 22 **Authority.**

23 Plaintiffs recycle another previously-rejected argument—that the FDA’s
24 Assessment and rejection of the citizen’s petition do not constitute official or final
25 Agency action taken pursuant to congressionally delegated authority. In 2015, the

26 ⁴ G. Alexander Fleming, M.D. Deposition Tr. (May 22, 2015) at 92:13–16, 201:21–
27 202:1 (Ex. B to Apr. 22, 2020 Declaration of Paul E. Boehm in Supp. of Defs.’
28 Mot. for Summ. J., Doc. No. 3522-2 (hereinafter “Ex.”))

1 Court found that “[t]he FDA’s review of pancreatic safety data of the drugs at issue
2 *falls squarely within the FDA’s congressionally delegated authority* to regulate the
3 safety of prescription drugs.” 142 F. Supp. 3d at 1126–27. Plaintiffs contend that
4 *Albrecht* requires a different conclusion. It does not. *Albrecht* merely confirms that
5 courts must consider whether the Agency’s actions were made pursuant to
6 congressionally delegated authority, which this Court did.

7 **A. FDA Acted Within Its Congressionally Delegated Authority.**

8 *Albrecht* “make[s] only the obvious point that, whatever the means the FDA
9 uses to exercise its authority, those means must lie within the scope of the authority
10 Congress has lawfully delegated.” 139 S. Ct. at 1679. This Court considered that
11 very question in 2015, finding that the FDA acted “squarely within [its]
12 congressionally delegated authority.” 142 F. Supp. 3d at 1126.⁵

13 While *Albrecht* recognizes that the FDA may use a variety of means to express
14 its disapproval of a proposed warning, plaintiffs contend only three exist. Opp’n at
15 19. Even that cramped listing, however, betrays the flexibility available to the FDA,
16 for plaintiffs’ third “means” of action is “[o]ther agency actions carrying the force of
17 law.” *Id.* *Albrecht* does not provide an exhaustive listing of means “within the scope
18 of the authority Congress has lawfully delegated” because the issue of specific
19 “disapproval ‘method’ [was] not before [the Court].” 139 S. Ct. at 1679.⁶

20 None of the other cases plaintiffs cite advance their argument, either. Plaintiffs
21 badly mischaracterize the Third Circuit’s decision in *In re Avandia Marketing*, 945
22 F.3d 749 (3d Cir. 2019). There, the court held that the manufacturer could not show
23 that the FDA, in rejecting the manufacturer’s PAS, was “fully informed” because it
24 was not actually communicating disapproval of a labeling change; rather, the FDA

25 ⁵ In doing so, the Court relied on *Reid v. Johnson & Johnson*, 780 F.3d 952, 964 (9th
26 Cir. 2015), so it is strange that plaintiffs urge the Court to consider *Reid* as if it had
27 not already done so, *see* Opp’n at 18.

28 ⁶ Each example of FDA action to which the opinion refers is accompanied by “*e.g.*”

1 told the manufacturer that “the information [it] presented is inadequate” and
2 subsequently “*ordered* [it] to include various warnings” about the injury at issue. *Id.*
3 at 758, 760 (emphasis in original). The contrasts are obvious—here, the FDA
4 “conducted an independent review of pancreatic safety and concluded scientific
5 evidence did not support any changes to the product labeling.” 142 F. Supp. 3d at
6 1125. In addition, since 2015, the FDA has approved four new incretin-based
7 therapies, as well as more than 50 additional labeling changes for the specific
8 medicines at issue in this litigation. In each case, the FDA approved the labeling
9 without mandating a pancreatic cancer warning.⁷ “While FDA inaction is insufficient
10 on its own to establish preemption, it is highly persuasive given the FDA’s
11 comprehensive review of pancreatic safety and ability to mandate a labeling change if
12 it concluded the regulatory standards were satisfied.” 142 F. Supp. 3d at 1123; *see*
13 *also Ridings*, 444 F. Supp. 3d at 998 (finding that “FDA’s continued inaction” “in
14 light of the known issues and the ongoing give-and-take between [defendant] and the
15 FDA on these issues ... represent[ed] clear evidence under these facts”).⁸

16 Plaintiffs similarly mischaracterize *Dolin v. GlaxoSmithKline LLC*, 951 F.3d
17 882 (7th Cir. 2020), claiming that it “found that *Albrecht* appeared to have abolished
18 impossibility preemption based on what the FDA ‘would have’ done.” Opp’n at 21.

19
20 ⁷ Defs.’ Mem. in Supp. of Defs.’ Mot. for Summ. J. Based on Preemption (“Opening
Br.”) at 10–12.

21 ⁸ Plaintiffs contend that by declining to address the effect of the FDAAA
22 amendments of 2007, the *Albrecht* majority “rejected” the idea that FDA inaction
23 informs the “clear evidence” analysis. Opp’n at 13–14. The Supreme Court did no
24 such thing. In *Albrecht*, given the duties imposed by the 2007 amendments, Merck
25 argued that the FDA’s inaction was relevant evidence of its intentions. The
26 majority did not take up that issue, expressly declining to address “[t]he question
27 of disapproval ‘method.’” 139 S. Ct. at 1679. Justice Alito observed, without
28 contradiction, that the majority’s decision therefore did not preclude the Third
Circuit from considering on remand “the effect of [21 U.S.C.] § 355(o)(4)(A) on
the pre-emption issue in this case.” *Id.* at 1684–85 (Alito, J., concurring).

1 The quoted paragraphs, however, are part of the Seventh Circuit’s recitation of the
2 plaintiffs’ position on appeal, not the court’s reasoning or holding. 951 F.3d at 890.
3 The Seventh Circuit affirmed the district court’s decision dismissing the matter based
4 on preemption, observing that “*Albrecht* brought the *Wyeth* ‘clear evidence’ holding
5 into sharper focus. It did not adopt a new rule of preemption law.” *Id.* at 891.

6 In other words, there are no new facts or law to change this Court’s
7 determination that the Agency’s actions here are “squarely within its congressionally
8 delegated authority.”⁹

9 **B. FDA’s Conclusions About the Pancreatic Safety of Incretin-Based**
10 **Therapies Reflect the Views of the Agency.**

11 Plaintiffs claim that the FDA’s conclusions on the pancreatic safety of incretin-
12 based therapies—no matter how robust its evaluation, or how clear its findings—do
13 not reflect the Agency’s official position. But again, the Court considered this
14 question and reached the opposite conclusion: “the Court finds the Assessment and
15 citizen petition response constitute the FDA’s official position regarding pancreatic
16 safety, as both fall within the FDA’s congressionally delegated regulatory
17 authority.” 142 F. Supp. 3d at 1126–27; *see also Seufert v. Merck Sharp & Dohme*
18 *Corp.*, 187 F. Supp. 3d 1163, 1173–74 & n.15 (S.D. Cal. 2016) (holding that the 2014
19 Assessment represented “the FDA’s conclusions”). Plaintiffs refer to 21 C.F.R.
20 § 10.85(k) for the proposition that the FDA Assessment “expressly does not represent
21 the FDA’s position.” Opp’n at 20. This is incorrect. Although § 10.85(k) cautions
22 that a written statement by FDA employees “does not *necessarily* represent the formal
23

24 ⁹ Plaintiffs also cite two district court opinions, but each held only that preemption
25 was “premature” at the motion to dismiss stage. In one, defendants cited only “a
26 single paragraph in the Complaint.” *Crockett v. Luitpold Pharm., Inc.*, No. 19-276,
27 2020 WL 433367, at *7 (E.D. Pa. Jan. 28, 2020). In the other, the defendant did
28 not “point to any evidence ... that the FDA would have rejected a different
warning label.” *Atkinson v. Luitpold Pharm., Inc.*, No. 19-277, 2020 WL 1330705,
at *3 (E.D. Pa. Mar. 23, 2020).

1 position of FDA,” the 2014 Assessment “is written from the FDA’s perspective and
2 lacks the disclaimer required when publications of FDA employees do not necessarily
3 reflect the opinions of the agency.” 142 F. Supp. 3d at 1126. The Assessment states
4 that “*the FDA* and the EMA ... agree that assertions concerning a causal association
5 between incretin-based drugs and pancreatitis or pancreatic cancer, as expressed
6 recently in the scientific literature and in the media, are inconsistent with the current
7 data,” and that “[*t*]he FDA and the EMA believe that the current knowledge is
8 adequately reflected in the product information or labeling.”¹⁰ Even plaintiffs’ expert,
9 Dr. Fleming, acknowledged that the Assessment “represents FDA’s position.”¹¹

10 Plaintiffs also contend that the FDA’s Assessment does not reflect its final
11 conclusion on the matter. Opp’n at 22. This, too, rehashes an argument this Court
12 rejected five years ago: “the FDA’s ongoing review of pancreatic safety [is] more
13 indicative of the evolving nature of drug surveillance, than of the existence of a causal
14 association.” 142 F. Supp. 3d at 1128. As the Court previously explained, the FDA is
15 continually reviewing safety data for drugs on the market,¹² and as such no FDA
16 determination about drug safety can be final for all time. “The potential for the FDA
17 to reach a different conclusion in the future in light of new scientific evidence or
18 developments does not preclude a finding of preemption now.” 142 F. Supp. 3d at
19 1128.¹³ Here, the Agency’s pledge to “continue to investigate” the pancreatic safety
20

21 ¹⁰ FDA Assessment (Ex. A) at 796.

22 ¹¹ Fleming Tr. (Ex. B) at 84:22–25.

23 ¹² See, e.g., 21 U.S.C. § 355(o)(4) (requiring the FDA to act on “new safety
24 information” that may affect “the labeling of the drug”).

25 ¹³ Plaintiffs cite *In re Testosterone Replacement Therapy*, 430 F. Supp. 3d 516 (N.D.
26 Ill. 2019), for the proposition that an FDA statement that studies and trials are
27 “inconclusive for determining risk,” precludes a finding of preemption. Opp’n at
28 22. *In re Testosterone* is inapposite in that the court relied heavily on the fact that
the FDA ultimately “recognized that there *is* evidence of an association.” 430 F.
Supp. 3d at 530 (emphasis in original).

1 of incretin-based therapies in the context of its comprehensive Assessment only
2 undermines plaintiffs’ opposition—in the years since its Assessment, the FDA has
3 continued to consider and approve numerous labeling changes, expand treatment
4 indications, and approve additional incretin-based therapies, all without requiring a
5 warning for pancreatic cancer.

6 **III. Plaintiffs’ Purported Safety Information Is Not “Newly Acquired**
7 **Information,” And FDA’s Conclusions Are Fully Informed.**

8 With respect to plaintiffs’ purported “material safety information,” there are
9 three distinct questions of law for the Court to decide:

10 1. *Does plaintiffs’ purported “material safety information” constitute*
11 *“newly acquired information” such that defendants could submit a CBE labeling*
12 *change?* As *Albrecht* notes, “manufacturers cannot propose a change that is not based
13 on reasonable evidence. [21 C.F.R.] § 314.70(c)(6)(iii)(A).” 139 S. Ct. at 1679.¹⁴
14 This means that “[p]ost-FDA approval preemption analysis proceeds in two stages.
15 First the plaintiff must show that there existed ‘newly acquired information’ such that
16 the defendants could unilaterally change the label pursuant to the CBE regulation
17 without FDA approval.” *Utts v. Bristol-Myers Squibb Co.*, 251 F. Supp. 3d 644, 661
18 (E.D.N.Y. 2017), *aff’d sub nom. Gibbons v. Bristol-Myers Squibb Co.*, 919 F.3d 699
19 (2d Cir. 2019); *see also McGrath v. Bayer Healthcare Pharm., Inc.*, 393 F. Supp. 3d
20 161, 166–68 (E.D.N.Y. 2019); *Goodell v. Bayer Healthcare Pharm. Inc.*, 2019 WL
21 4771136, at *4 (D. Mass. Sept. 30, 2019). In other words, “if there is no newly

22
23 ¹⁴ *See also McGrath*, 393 F. Supp. 3d at 167 (“[N]ewly acquired information ‘must
24 provide *reasonable evidence* of a causal association of a clinically significant
25 adverse reaction linked to a drug.’”) (quoting 21 C.F.R. § 201.57(c)(6)(i))
26 (emphasis in original); 142 F. Supp. 3d at 1112 (“[A]n indeterminate causal
27 association falls below the federal regulatory standards required for labeling
28 changes.”). The information also “must have revealed risks of a different type or
greater severity or frequency than previously included in submissions to the FDA.”
Gibbons, 919 F.3d at 708 (internal quotations omitted).

1 acquired information, then the manufacturer is under no duty to change its label and
2 related state failure to warn claims are preempted.” *Roberto v. Boehringer Ingelheim*
3 *Pharm.*, 2019 WL 5068452, at *11 (Conn. Super. Ct. Sept. 11, 2019) (citing *Utts*, 251
4 F. Supp. 3d at 673).¹⁵ This basis for preemption is independent of the “clear
5 evidence” test set forth in *Wyeth* and *Albrecht*.

6 Here, there is no relevant “newly acquired information” that, under federal law,
7 would qualify for a CBE adding the pancreatic cancer warning plaintiffs contend is
8 required by state law. This is particularly clear given the FDA’s Assessment, which
9 involved review of an “unprecedented” volume of information from a wide-ranging
10 array of sources. Because plaintiffs’ purported “material safety information” does not
11 amount to “newly acquired information”—an issue that plaintiffs’ opposition elides—
12 plaintiffs’ claims are preempted.

13 2. *Was the FDA “fully informed” of material safety information in*
14 *concluding that a causal association between incretin-based therapies and pancreatic*
15 *cancer is not substantiated by available scientific data and that the current labeling is*
16 *adequate?* “[T]he mere availability of a CBE label amendment does not necessarily
17 defeat a manufacturer’s preemption defense. Because the FDA ‘retains the authority
18 to reject labeling changes,’ a manufacturer may still—even after the plaintiff has
19 identified ‘newly acquired information’—establish an impossibility preemption
20 defense through ‘clear evidence that the FDA would not have approved a change’ to
21 the label.” *Utts*, 251 F. Supp. 3d at 661 (quoting *Wyeth*, 555 U.S. at 571). The “clear
22 evidence” test requires that the Agency be “fully informed” of the reasonable
23 justifications for the warning plaintiffs advocate. *Albrecht*, 139 S. Ct. at 1678. Here,
24 the FDA was fully informed of all material information allegedly supporting a
25

26 ¹⁵ See also, e.g., *Ridings*, 444 F. Supp. 3d at 990–91; *Mahnke v. Bayer Corp.*, 2020
27 WL 2048622, at *5 (C.D. Cal. Mar. 10, 2020); *Adkins v Boehringer Ingelheim*
28 *Pharm., Inc.*, 2020 WL 1704646 at *3–4 (Conn. Super. Ct. Mar. 13, 2020).

1 pancreatic cancer warning.¹⁶ That is particularly clear given the close attention paid
2 by the Agency to this issue over the course of many years. It is also clear based on a
3 careful look at the purported “material safety information,” as explained below.

4 3. *Is it the “law of the case” that defendants failed to submit all material*
5 *safety information to the FDA?* Plaintiffs’ contention that the “law of the case”
6 precludes summary judgment misreads this Court’s 2015 decision and the Ninth
7 Circuit’s finding on appeal. In opposing the 2015 motions, plaintiffs argued that
8 certain data that defendants allegedly withheld from the FDA “constitute[d] new
9 safety information within the meaning of federal labeling regulations.” 142 F. Supp.
10 3d at 1129. The Court held that plaintiffs’ allegations amounted to “fraud-on-the-
11 FDA claims” that were preempted under *Buckman v. Plaintiffs’ Legal Committee*, 531
12 U.S. 341 (2001), and therefore it could not consider the information as part of its
13 “clear evidence” analysis. 142 F. Supp. 3d at 1129–30. The Court noted that, in any
14 event, “it remains unclear whether the FDA considered this information, and if it did
15 not, whether this data would have altered the FDA’s conclusion,” given that “[t]he
16 parties’ experts dispute whether the information was material to the FDA’s analysis
17 and offer little clarity on this point.” *Id.* at 1130.

18 On appeal, the Ninth Circuit held that *Buckman* did not “preclude discovery of
19 evidence relevant to the plaintiffs’ state-law failure-to-warn claims,” and that this
20 Court erred by “deem[ing] the new safety information irrelevant at the summary
21 judgment stage.” *In re Incretin-Based Therapies Prods. Liab. Litig.*, 721 F. App’x

22 ¹⁶ Plaintiffs cite *Risperdal & Invega Cases*, 263 Cal. Rptr. 3d 412 (2020), for the
23 proposition that scientific information cumulative of what the FDA already has can
24 nevertheless constitute “newly acquired information.” Opp’n at 16. This
25 mischaracterizes the ruling. There, the table of data at issue could “support a
26 potential label change via the CBE regulation” precisely because the table
27 “provided additional information” on the adverse effects of the drug in question
28 relative to “the studies submitted to the FDA.” 264 Cal. Rptr. 3d at 425. As
discussed below, the data plaintiffs identify here provides no such “additional
information.” *Id.*

1 580, 583–84 (9th Cir. 2017). Relying on this Court’s observation that in light of
2 conflicting expert testimony it “remains unclear” whether the FDA considered the
3 new information or whether that information would have been material, the Ninth
4 Circuit explained that the Court’s uncertainty “should have prevented entry of
5 summary judgment.” *Id.* at 584. But instead of reversing this Court’s summary
6 judgment finding—which it would have done had it found the information was
7 material as a matter of law, *see, e.g., Messick v. Novartis Pharm. Corp.*, 747 F.3d
8 1193, 1199 (9th Cir. 2014)—the Ninth Circuit vacated and remanded the case to this
9 Court. 721 F. App’x at 584.

10 Plaintiffs’ argument also is at odds with their withdrawal of the expert
11 testimony that gave this Court pause in 2015. In particular, plaintiffs have now
12 withdrawn the portions of Dr. Fleming’s report relating to the materiality of the
13 purported “safety information.” *See* Opening Br. at 21 n.66. As a result, the only
14 evidence on materiality is that of defendants’ expert, Dr. Goldkind, who testified that
15 the data plaintiffs identify “is *cumulative and repetitive* of the very safety information
16 the FDA already has considered.” *Id.* at 21; *see also Gibbons*, 919 F.3d at 708
17 (holding that “newly acquired information” must reveal “risks of a different type or
18 greater severity or frequency than previously included in submissions to the FDA”
19 (quoting 21 C.F.R. § 314.3)). In other words, there is no longer any dispute among
20 the experts over “whether the information was material to the FDA’s analysis.” 142
21 F. Supp. 3d at 1130; 721 F. App’x at 584 (“[T]he parties’ experts disputed whether the
22 ‘new safety information’ would have been material to the FDA’s analysis.”).

23 **A. Sitagliptin (Januvia and Janumet)**

24 Plaintiffs contend that the FDA might not be “fully informed” of certain
25 “material safety information,” thereby precluding preemption for Merck under the
26 “clear evidence” test. They do not address the threshold question of whether the
27 purported “safety information” they identify amounts to “newly acquired information”
28 under the CBE regulation, § 314.70. Putting that problem aside, plaintiffs point to

1 (i) a preliminary signal assessment performed by Health Canada in November 2013;
2 (ii) a purported “clinical trial imbalance” in sitagliptin clinical trials; (iii) a 2014
3 amendment to the clinical study protocol for TECOS requiring the collection of
4 specified events more than 28 days after a patient had discontinued from the study;
5 and (iv) nonclinical studies involving desfluorositagliptin, an experimental compound
6 that no plaintiff in this litigation (or any human being ever) has used.

7 ***Health Canada Preliminary Signal Assessment.*** Plaintiffs say in passing that
8 it is not clear whether “the FDA reviewed it prior to the 2014 NEJM article.” Opp’n
9 at 26. For all of the reasons set forth in the opening brief—none of which plaintiffs
10 respond to—the preliminary assessment performed by Health Canada is not material
11 and does not constitute “newly acquired information” under § 314.70. It involves
12 application of regulatory standards that do not apply to the FDA; does not address any
13 stream of data the FDA has not itself carefully considered; did not reveal new risk
14 information; did not conclude that there was “reasonable evidence of a causal
15 association”; and was not final—as plaintiffs know, it was updated in 2016 to confirm
16 Health Canada’s view that “***existing data do not suggest a causal relationship***
17 ***between incretin-based therapies and the development of [pancreatic cancer].***”
18 Opening Br. at 23–25. The preliminary assessment performed by Health Canada is
19 neither material, nor does it amount to “newly acquired information.”

20 ***“Clinical Trial Imbalance.”*** Plaintiffs cite no evidence for their continued
21 claim that sitagliptin clinical trials reveal an overall numerical imbalance of 6 to 3.
22 Even if it were the case—which it is not—plaintiffs fail to identify, nor have their
23 experts performed, any statistical analysis based on these purported numbers.
24 Statistical associations, not purported “numerical imbalances,” take into account the
25
26
27
28

1 number of patient-years of observation in each arm of the analysis to compare the
2 incidence rates of disease in an exposed group and a control group.¹⁷

3 The so-called “misrepresentation” to which plaintiffs refer is rooted in a 2013
4 peer-reviewed pooled analysis—published in a publicly-available medical journal and
5 available to the FDA—of *a specifically-designed subset* of sitagliptin clinical studies
6 in patients (i) treated with a 100mg/day dose (ii) for between 12 weeks and 2 years
7 (iii) that were completed as of December 2011.¹⁸ The study authors expressly defined
8 these criteria in the publication itself:

9 METHODS

10 This post hoc analysis used a pooled population
11 ($n = 14,611$) drawn from all 25 multicenter, US
12 or multinational, double-blind, parallel-group
13 studies conducted by Merck & Co., Inc., in
14 which patients were randomized to receive
15 sitagliptin 100 mg/day ($n = 7,726$) or a
16 comparator ($n = 6,885$) for at least 12 weeks
17 and up to 2 years (the duration of the longest
18 studies) and for which results were available as
19 of December 1, 2011 (complete study listing in
20 Table 6 in Appendix).

21 Engel Analysis (Ex. AV to Boehm Supp. Decl.) at 3. This is the publication to which
22 plaintiffs refer in their opposition. This publication is repeatedly and specifically
23 referenced throughout the Development Safety Update Report (“DSUR”) that
24 plaintiffs claim was misleading.¹⁹ Contrary to plaintiffs’ suggestion that Merck

25 ¹⁷ See Fed. Judicial Ctr., *Reference Manual on Scientific Evidence* 566–67 (3d ed.
26 2011) (Ex. AK).

27 ¹⁸ Samuel S. Engel, et al., *Safety and Tolerability of Sitagliptin in Type 2 Diabetes:
28 Pooled Analysis of 25 Clinical Studies*, *Diabetes Therapy* 2013; 8:119–45 (“Engel
Analysis”) (attached as Ex. AV to the Supplemental Declaration of Paul E. Boehm
(hereinafter “Boehm Supp. Decl.”)).

¹⁹ MRKJAN0003289815 at 43–45, 82, 163, 198, 204, 250, 331, 366, 368, 408
(relevant portions attached as Ex. AW to Boehm Supp. Decl.).

1 “misrepresent[ed] its clinical trial data,” Opp’n at 40, Merck explicitly informed the
2 FDA that the pooled analysis did not include certain studies, and Merck explained in
3 detail why those studies were excluded.²⁰

4 Plaintiffs do not dispute that they have retained two expert biostatisticians in
5 this litigation, one of whom, Dr. David Madigan, performed a statistical analysis of all
6 available sitagliptin clinical trial data available *as of 2015*. Dr. Madigan’s analysis—
7 like every meta-analysis published in the peer-reviewed literature and performed by
8 other experts in this litigation—does not reveal an association between sitagliptin and
9 pancreatic cancer.²¹ In sum, a purported overall “numerical imbalance” in the
10 sitagliptin clinical trial data is the creation of plaintiffs’ counsel, is nowhere to be
11 found in the evidence, and is rebutted by the statistical analysis of plaintiffs’ own
12 expert. It cannot be material to FDA’s conclusions, nor can it constitute “newly
13 acquired information” under § 314.70.

14 ***TECOS Protocol Amendment.*** Next, plaintiffs contend that the FDA is not
15 “fully informed” about the inclusion of three pancreatic cancer events in the TECOS
16 study that occurred more than 28 days after those individuals discontinued use of the
17 treatment to which they were assigned (in this case, placebo), but before the TECOS
18 study protocol was amended in 2014 to require collection of certain events that
19 occurred more than 28 days after discontinuation.²² This is impossible. The very
20 documents plaintiffs cite about the TECOS study protocol, the 2014 protocol

21 ²⁰ MRKJAN0003289815 (Ex. AW to Boehm Supp. Decl.) at 169, 336;
22 MRKJAN0003241484 at 111 (relevant portions attached as Ex. BV to Boehm
23 Supp. Decl.).

24 ²¹ Merck’s Mem. in Support of Mot. for Summ. J. (Doc. No. 3524-1) at 4–10.

25 ²² Even before the 2014 protocol amendment, the original TECOS protocol provided
26 that “[t]he clinical events list and [serious adverse events] Modules will be
27 reviewed and completed *each time the patient is seen in follow up*”—regardless of
28 how long it had been since study drug discontinuation. MRKJAN0004004352
(relevant portions attached as Ex. AX to Boehm Supp. Decl.) at 35.

1 amendment, and the specific information about each of these three individuals are
2 among the files constituting Merck’s communications *with the FDA*.²³

3 Plaintiffs seemingly seek to imply that scientific researchers from Oxford and
4 Duke Universities who conducted the TECOS study may have altered the pancreatic
5 cancer results by more assiduously counting events in the placebo arm than events in
6 the sitagliptin arm. This ignores that the physicians responsible both for reporting
7 events and the specialists responsible for adjudicating them were blinded as to which
8 arm of the study individual patients were enrolled in.²⁴ They could hardly have
9 recorded events differently for sitagliptin and placebo patients if they did not know
10 which patients were in which arm of the study, and plaintiffs present no evidence
11 otherwise. In any event, even if one were to exclude the “adjudicated-yes placebo
12 cases” that plaintiffs contend skew the TECOS numbers, Opp’n at 42 (emphasis
13 omitted)—and to be clear, there is no basis for doing that—there still would be more
14 pancreatic cancer events in the placebo arm (11) than in the sitagliptin arm (9).²⁵

15 Plaintiffs raise other questions about TECOS, all of which easily could have
16 been answered if they had proceeded with the deposition of Dr. Samuel Engel, the
17 researcher at Merck Research Labs most knowledgeable about TECOS. Instead,
18 plaintiffs elected to cancel Dr. Engel’s deposition less than two days before it was
19 scheduled to proceed. Regardless, all of the purported issues plaintiffs identify were
20 contained in Merck’s communications *with the FDA*.²⁶ Indeed, although plaintiffs
21 mischaracterize the underlying facts, they correctly point out that the FDA has paid

22 ²³ E.g., MRKJAN-CC0000493967 (Ex. AY to Boehm Supp. Decl.) (cover letter to
23 FDA discussing TECOS protocol amendment).

24 ²⁴ MRKJAN0004004352 (Ex. AX to Boehm Supp. Decl.) at 12, 22–23.

25 ²⁵ MRKJAN0005019776 (Ex. 43 to the Declaration of Tor A. Hoerman in Support of
26 Plaintiffs’ Opposition, Doc. No. 3721-1 (hereinafter “Opp’n Ex.”)).

27 ²⁶ E.g., MRKJAN-CC0000493967 (Ex. AY to Boehm Supp. Decl.) (cover letter to
28 FDA discussing TECOS protocol amendment).

1 close attention to results from TECOS. Meanwhile, no expert in this litigation has
2 called into question the pancreatic cancer results from the TECOS study; plaintiffs'
3 own expert biostatistician, Dr. David Madigan, testified that it is "scientifically
4 appropriate" to include TECOS data in any meta-analysis of sitagliptin clinical trial
5 data; and the peer-reviewed publication of the study's final results remain publicly
6 available.²⁷

7 No amount of massaging data from the TECOS study can render the
8 information plaintiffs identify material to the Agency's conclusions about sitagliptin's
9 pancreatic safety or "newly acquired information" under § 314.70.

10 ***Desfluorositagliptin.*** Finally, plaintiffs cast various aspersions on Merck's
11 development and use of desfluorositagliptin, a compound that is not at issue in this
12 litigation. Desfluorositagliptin is not sitagliptin. As background, desfluorositagliptin
13 is a DPP-4 inhibiting compound that shares certain properties with sitagliptin—it is, as
14 plaintiffs point out, "virtually identical" in terms of potency, selectivity, and
15 pharmacokinetics. But this is not a complete listing of all pharmaceutical
16 characteristics, and desfluorositagliptin has "many other features associated with the
17 molecule that are not the same" and these "are by nature two different molecules."²⁸

18 Desfluorositagliptin has not been developed for clinical use. It is not on the
19 market as a prescription medicine. No plaintiff in this litigation has taken
20 desfluorositagliptin and alleged that it caused an injury. Indeed, no human has ever

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22 ²⁷ David Madigan, Ph.D. Deposition Tr. (Oct. 19, 2015) at 154:19–155:15 (relevant
23 portions attached as Ex. AZ to Boehm Supp. Decl.); *see also* Merck's Reply in
24 Support of Mot. for Summ. J. at 7–8. The peer-reviewed publication is available at
<https://www.nejm.org/doi/full/10.1056/nejmoa1501352> (last visited Sept. 1, 2020).

25 ²⁸ Bei Zhang, Ph.D. Deposition Tr. (July 24, 2019) at 147:17–148:12 (relevant
26 portions attached as Ex. BA to Boehm Supp. Decl.); *see also* Nancy Thornberry
27 Deposition Tr. (Sept. 29, 2016) at 99:18–23 (relevant portions attached as Ex. BB
28 to Boehm Supp. Decl.) (testifying that desfluorositagliptin "is not identical to
sitagliptin").

1 ingested this compound for any purpose, not in exploratory studies, efficacy studies,
2 or safety studies.²⁹ The only experiments in which desfluorositagliptin has been used
3 are in non-clinical experimental settings (i.e., animal and petri dish experiments).

4 Plaintiffs' argument seemingly is that Merck nevertheless should have provided
5 certain study results for desfluorositagliptin "to provide the FDA with more of the
6 exact kind of data the FDA sought." Opp'n at 39. Plaintiffs point to only one specific
7 study—a 2008 study in mice performed by a group of independent academic
8 researchers at the University of Toronto, the results of which "had been accepted for
9 publication" in a publicly-available, peer-reviewed scientific journal. *Id.* at 37.
10 Plaintiffs claim "[t]his was a study that undoubtedly could have provided material
11 safety information, but Merck did not obtain or review the samples to respond to the
12 FDA, nor suggest that FDA review them." *Id.* at 38.

13 This is a curious line of attack, to be sure. Whatever the similarities or
14 dissimilarities between desfluorositagliptin and sitagliptin, the 2008 mouse study—the
15 only "undisclosed" desfluorositagliptin information plaintiffs specifically identify—
16 was published and is available to anyone with an Internet connection.³⁰ Regardless,
17 the study does not reveal any safety concerns related to the pancreas or otherwise.³¹

18 Indeed, plaintiffs do not cite any adverse safety data of any kind from studies
19 performed using desfluorositagliptin. Bei Zhang, a former research scientist at Merck
20 involved in desfluorositagliptin studies, testified that she could not identify a single
21

22 ²⁹ Zhang Tr. (Ex. BA to Boehm Supp. Decl.) at 47:4–48:20 (explaining that, although
23 Merck used desfluorositagliptin to "conduct basic research" with "exploratory
24 models," "the compound developed for human use is sitagliptin").

25 ³⁰ Benjamin J. Lamont & Daniel J. Drucker, *Differential Antidiabetic Efficacy of*
26 *Incretin Agonists Versus DPP-4 Inhibition in High Fat-Fed Mice*, *Diabetes* 57:1 at
27 190–198 (Jan. 2008), available at <https://pubmed.ncbi.nlm.nih.gov/17928394/>
(attached as Ex. BC to Boehm Supp. Decl.).

28 ³¹ See *id.* (Ex. BC to Boehm Supp. Decl.) at 191–93.

1 desfluorositagliptin study conducted by Merck that resulted in negative safety
2 information related to the pancreas—this included basic research studies, safety
3 assessment studies, and exploratory experiments.³² Of the more than 120
4 desfluorositagliptin studies available through a basic PubMed search, plaintiffs cannot
5 identify a single one that raises concerns about pancreatic toxicity. Of the more than
6 200 references to desfluorositagliptin studies in Merck’s communication files with the
7 FDA, plaintiffs cannot identify a single one that raises concerns about pancreatic
8 toxicity. Of the more than 40 published, unpublished, and internal studies that Merck
9 has identified, summarized, and produced to plaintiffs over the course of this
10 litigation—as part of its 37 million pages and 2,700 gigabytes of raw data of
11 productions—plaintiffs cannot identify a single one that raises concerns about
12 pancreatic toxicity. In short, although plaintiffs claim that desfluorositagliptin studies
13 were “done for the purpose of concealing from the FDA information that Merck
14 obtained about sitagliptin by testing desfluorositagliptin,” Opp’n at 39, they fail to
15 identify any adverse safety information from the hundreds of desfluorositagliptin
16 studies available to them. In fact, plaintiffs complain that Merck knew in advance that
17 sitagliptin studies “*would be favorable* because it had first researched the issue with
18 desfluorositagliptin.” *Id.*³³

21 ³² Zhang Tr. (Ex. BA to Boehm Supp. Decl.) at 421:10–21, 437:7–438:11. Dr.
22 Zhang further testified that pharmaceutical companies commonly use analog
23 compounds, including to better structure studies that will later be used with the
compound-in-development. *Id.* (Ex. BA to Boehm Supp. Decl.) at 36:9–38:7.

24 ³³ Also without substance is the claim that “Merck proceeded to hide
25 [desfluorositagliptin data] from Plaintiffs ... , despite being under a court order to
26 produce it.” Opp’n at 39. The facts are that after hearing a discovery motion on
27 this issue in November 2018, the Court told plaintiffs to raise the issue again if
28 they were unsatisfied with Merck’s document productions relating to
desfluorositagliptin. Tr. of Nov. 1, 2018 Hearing (Doc. No. 2731) at 38:20–39:21.
Plaintiffs never did.

Moreover, even if plaintiffs had been able to identify any data suggesting concerns about pancreatic toxicity arising from desfluorositagliptin studies *in vitro* and in animals—i.e., non-human studies in a compound not at issue in this litigation—those data would constitute, at the very most, a safety signal with respect to actual effects of sitagliptin (Januvia and Janumet) in humans. “The existence of a safety signal is not, without more, indicative of a causal association.” 142 F. Supp. 3d at 1127. And, as discussed at length above, the FDA has long been aware of the pancreatic cancer safety signal and found that it does not warrant a labeling change for sitagliptin. *Id.* at 1125–27.

In sum, plaintiffs have not identified any “material safety information” related to sitagliptin—through the windy path of desfluorositagliptin, or otherwise—nor do plaintiffs show that desfluorositagliptin data could possibly constitute “newly acquired information” that “provide[s] *reasonable evidence* of a causal association” between sitagliptin and pancreatic cancer. *See McGrath*, 393 F. Supp. 3d at 167.

B. Exenatide (Byetta)

Plaintiffs claim there are three types of “material safety information” that Amylin allegedly “failed to provide” the FDA: (1) plaintiffs’ own litigation expert’s “re-analysis” of slide images from a non-human primate study purporting to find “PanIN” lesions; (2) Amylin’s presentation of pancreatic cancer events in its clinical trials; and (3) “compromised data collection” in the EXSCEL cardiovascular outcome randomized clinical trial. Plaintiffs’ arguments should be rejected as matter of law, because:

- Plaintiffs do not, and cannot, contend that any of this purported “safety information” constitutes “newly acquired information” under 21 C.F.R. § 314.70, and it therefore cannot justify a company change to the exenatide labeling.
- Plaintiffs admit that FDA already has *all* the underlying articles and clinical trial data they reference. Amylin did not “fail[] to provide” anything to FDA.

- 1 • Instead of producing newly acquired information, plaintiffs (without any expert
2 support) second-guess FDA's analysis of the information that Amylin and Lilly
3 provided. This second guessing of agency action is precisely what preemption
4 law precludes. *See Albrecht*, 139 S. Ct. at 1672.
- 5 • No plaintiffs' expert opines that any of this so-called newly acquired
6 information provides "reasonable evidence of a causal association," the
7 threshold required for a warning. 21 C.F.R. § 201.57(c)(6)(i).

8 There is accordingly no basis to conclude that any of this information would have
9 been "material" to the FDA and/or could have justified a labeling change.

10 **Non-Human Primate Animal Study.** According to plaintiffs, Amylin "falsely
11 claimed to the FDA and the medical community" that there were no histopathologic
12 changes, including PanIN lesions, in a 14-week baboon study. Opp'n at 27.³⁴
13 Plaintiffs acknowledge the FDA has this study, so by definition, it is not "newly
14 acquired information."³⁵ The inquiry should end there. Instead, however, plaintiffs
15 attempt to undermine the FDA's conclusions by relying on their litigation expert's
16 (unreliable) reanalysis of the study slides.

17 The peer-reviewed, published article of the 14-week baboon study (Fiorentino
18 2015) evaluated pancreas tissue slides and found "no histological lesions suggestive of
19

20 ³⁴ Plaintiffs also claim that "Amylin does not dispute" this fact. Opp'n at 27.
21 Amylin absolutely disputes any suggestion that it "falsely claimed" anything to
22 either FDA or the medical community. Plaintiffs do not cite any support for their
23 assertion, which is contradicted by the evidence submitted with the pending
24 motions. *See* Teresa V. Fiorentino, et al., *Chronic Continuous Exenatide Infusion*
25 *Does Not Cause Pancreatic Inflammation and Ductal Hyperplasia in Non-Human*
Primates, 185 Am. J. of Pathology 139 (Jan. 2015) ("Fiorentino Study") (Opp'n
Ex. 7).

26 ³⁵ This article also includes a number of images of the pancreas cells on which the
27 authors relied in reaching their conclusions, thereby enabling FDA to reach its own
28 conclusions.

1 ... PanIN.”³⁶ Plaintiffs’ purported “evidence” to the contrary is an outdated expert
2 report by Dr. Taylor prepared for this litigation. As explained in detail in defendants’
3 accompanying motion to exclude, Dr. Taylor’s purported “re-analysis” is unreliable
4 and should be rejected.

5 In any event, expert testimony “unsupported by any published research” (as Dr.
6 Taylor’s is here) cannot constitute newly acquired information. *Roberto*, 2019 WL
7 5068452, at *19; *see also Adkins*, 2020 WL 1704646, at *9 & n.17, *11 (a “statement
8 from a single scientist” cannot constitute newly acquired information “until that
9 statement becomes part of a peer-reviewed article or finds other forms of
10 corroboration”). Nor are animal data alone, such as the baboon study (much less its
11 re-analysis, which is at issue), sufficient to trigger a label change. *Sabol v. Bayer*
12 *Healthcare Pharm., Inc.*, 439 F. Supp. 3d 131, 148–49 (S.D.N.Y. 2020) (animal
13 studies that “draw only a tentative, at best, suggestion of a causal relationship” do not
14 “draw the crucial causal link” necessary for a label change based on newly acquired
15 evidence); *McGrath*, 393 F. Supp. 3d at 170 (animal studies not sufficient to
16 demonstrate that a risk to humans is “apparent”). Moreover, as was explained in
17 defendants’ opening brief, plaintiffs ignore the very extensive, on-point animal
18 toxicology analysis already performed by FDA. *See* Opening Br. at 29. As Dr.
19 Goldkind testified: “I can’t conceive of a, of an animal study that could, could change
20 the weight of evidence of 240 studies and dozens of two[-year] carcinogenicity studies
21 on multiple animal species, I can’t conceive [of] that.”³⁷

22 **Clinical Trial Presentation.** Next, plaintiffs claim that there are
23 inconsistencies in how pancreatic cancer events in Amylin’s clinical trial data were
24

25 ³⁶ Fiorentino Study (Opp’n Ex. 7) at 148; *see also id.* at 144 (“no dysplastic lesions,
26 pancreatic intraepithelial neoplasia (PanIN), or lesions resembling pancreatic
27 cancer were observed in any pancreatic specimen examined at baseline or after
treatment in either animal group”).

28 ³⁷ Goldkind 2015 Tr. (Ex. AG) at 112:20–113:1.

1 summarized in various documents. *See* Opp’n at 43–44. Plaintiffs do not dispute the
2 critical issue: *all* clinical trial data were submitted to FDA, including *all* pancreatic
3 events identified by plaintiffs. *Id.* at 43 (noting submission of “PBRER to the FDA”);
4 *id.* at 44 (“researchers at Amylin submitted a journal article (which was later
5 published and then submitted by Amylin to the FDA)”). This alone belies any
6 argument that FDA was not “fully informed.” Rather, plaintiffs are again quibbling
7 with the significance of the evidence, not whether it was available to FDA. This is
8 precisely the type of second guessing that preemption precludes.³⁸

9 **EXSCEL.** The Exenatide Study of Cardiovascular Event Lowering Trial
10 (“EXSCEL”)—the largest RCT to date involving exenatide—was completed in 2017.
11 This trial involved 14,752 patients who were followed up to maximum of 6.8 years
12 after treatment with exenatide, and it specifically adjudicated pancreatic cancer as one
13

14
15 ³⁸ Plaintiffs also blatantly misrepresent the facts, but are still unable to conjure up any
16 newly acquired evidence. For example, plaintiffs argue (without citing any witness
17 testimony) that there are “strikingly different results” reported between an internal
18 summary and what Amylin included in a Periodic Benefit-Risk Evaluation Report
19 (PBRER). Opp’n at 43–44. But these documents are analyzing two different data
20 sets. Unlike the internal summary, the PBRER separates the data for Byetta
21 (exenatide twice-daily) and Bydureon (exenatide once-weekly). And the total
22 number of pancreatic cancer events for exenatide-treated subjects is the same in
23 both documents: 4 patients. *Id.* Plaintiffs also argue that “researchers at Amylin”
24 submitted a journal article in 2014 and “manipulated their selection of clinical
25 trials” so that there would be “zero pancreatic cancers.” *Id.* at 44. The article
26 focused on 8 clinical trials and examined patient data for those treated for 24 or 30
27 weeks. *See* Opp’n Ex. 47 (“A pooled database of individual patient data from eight
28 previously reported trials of exenatide QW was used to integrate safety data for
4,328 patients with type 2 diabetes treated for 24 or 30 weeks (blinded-comparator
period).”). On its face, the article did not purport to include data from any other
clinical trial. Plaintiffs claim that the article omitted a pancreatic cancer case,
Opp’n at 44, but plaintiffs’ “evidence” is the final clinical study report submitted to
the FDA. In other words, the document they claim shows a pancreatic cancer
event is the *same* document that plaintiffs admit the FDA received.

1 of its outcomes.³⁹ EXSCEL identified 31 pancreatic cancer events among those
2 patients, but reported *fewer* events of pancreatic cancer in patients treated with
3 exenatide compared to controls. That is, 16 patients taking a placebo developed
4 pancreatic cancer, compared to 15 taking exenatide.⁴⁰

5 As with the other clinical trial data, plaintiffs do not (and cannot) contend that
6 Amylin failed to submit *all* EXSCEL data to FDA. Instead, plaintiffs argue, again
7 without support, that EXSCEL was “the product of compromised data collection.”
8 Opp’n at 45. Regardless of the utter lack of basis for this accusation, this has nothing
9 to do with the issue presented—whether the FDA had, and was “fully informed,” of
10 the results of EXSCEL.

11 Each of plaintiffs’ arguments about EXSCEL are completely lawyer-
12 manufactured for the purpose of responding to this motion, and should be rejected.⁴¹
13 Indeed, none of plaintiffs’ experts has identified any of these purported “data
14 collection” issues. Rather, as is detailed in the defendants’ *Daubert* motions, *all* of
15 plaintiffs’ experts *avoided* analyzing the EXSCEL trial, either because they never
16
17
18

19 ³⁹ Rury R. Holman, et al., *Effects of Once-Weekly Exenatide on Cardiovascular*
20 *Outcomes in Type 2 Diabetes*, N. Engl. J. Med. 377:1228 (Sept. 2017) (Ex. AP).

21 ⁴⁰ Clinical Study Report, AMYLN06748007 at 183 (relevant portions attached as Ex.
BD to Boehm Supp. Decl.).

22 ⁴¹ *Olivier v. Baca*, 913 F.3d 852, 861 (9th Cir. 2019) (“[L]egal memoranda ... are not
23 evidence, and do not create issues of fact capable of defeating an otherwise valid
24 motion for summary judgment.”); *Barcamerica Int’l USA Tr. v. Tyfield Imps., Inc.*,
25 289 F.3d 589, 593 n.4 (9th Cir. 2002) (“[T]he arguments and statements of counsel
26 ‘are not evidence and do not create issues of material fact.’”); *Todd v. Stryker*
27 *Corp.*, 2012 WL 2922727, at *6 (E.D. Cal. May 1, 2012) (“[A]s many other courts
28 have noted, counsel’s bald advocacy about the significance of complex medical
literature, unsupported by an admissible and sufficient expert opinion, cannot raise
a genuine disputed fact issue.”).

1 updated their reports after 2015⁴²; or because they deliberately avoided discussing it,
2 often at the instruction of counsel⁴³; or in the case of Dr. Wells, because he realized
3 that it was inconsistent with his litigation-driven general causation opinion and instead
4 consistent with “no risk” of PDAC.⁴⁴

5 Plaintiffs claim that the protocol for EXSCEL did not include the “adjudication
6 of neoplasms” until 2011 or treat “pancreatic neoplasms” as “events of special
7 interest” until October 2013. Opp’n at 45. This is irrelevant—these protocols were all
8 submitted to FDA and *approved* by FDA.⁴⁵ And plaintiffs offer no evidence that any
9 pancreatic cancer case was missed as a result of earlier protocols.

10 Plaintiffs also argue that some pancreatic cancer events counted in the placebo-
11 arm were inconsistent with the EXSCEL protocol. For example, they identify three
12 cases where a patient in EXSCEL was also taking sitagliptin. Opp’n at 46–47. Use of
13 sitagliptin (or any other DPP-4 inhibitor) did not disqualify a patient from enrolling in
14 the study.⁴⁶ To the contrary, taking a DPP-4 inhibitor was expressly *allowed*:
15 “concomitant use of DPP-4 inhibitors is permitted.”⁴⁷ And once again, plaintiffs
16 (1) offer only attorney argument, not expert analysis, in support; and (2) offer nothing
17 “new” that was withheld from the FDA. For these reasons, plaintiffs’ alleged
18 inconsistencies are immaterial to a preemption analysis. If plaintiffs wanted to retain
19 an expert to second-guess the EXSCEL trial’s exclusion criteria they could have done
20

21 ⁴² See Defs.’ Mem. of Points & Authorities in Support of Mot. to Exclude Plaintiffs’
22 Experts Drs. Betensky, Landolph, Woolf and Taylor at 1.

23 ⁴³ See Defs.’ Mem. of Points & Authorities in Support of Mot. to Exclude Plaintiffs’
24 Experts Drs. Madigan, Wells, Brown and Gale at 19, 36, 38.

25 ⁴⁴ See *id.* at 5, 14, 36.

26 ⁴⁵ See AMYLN08149591 (attached as Ex. BE to Boehm Supp. Decl.).

27 ⁴⁶ See AMYLN06748007 (Opp’n Ex. 53).

28 ⁴⁷ AMYLN07832195 (relevant portions attached as Ex. BF to Boehm Supp. Decl.).

1 so, but they did not. Lay speculation by their attorneys in briefing is not evidence at
2 all, let alone “newly acquired” evidence.⁴⁸

3 Finally, to the extent plaintiffs do have relevant expert testimony, plaintiffs
4 ignore it and argue the opposite. Plaintiffs assert that the “best number for EXSCEL”
5 is not what was found in the clinical study report (15 events for exenatide and 16
6 events in placebo based on intention-to-treat), but is “12 exenatide versus 9 placebo”
7 based on the “adjudicated pancreatic cancers per protocol” found in an appendix.
8 Opp’n at 47. Again, plaintiffs concede that even their “12 exenatide versus 9 placebo”
9 data was submitted to the FDA (and is not statistically significant), so this argument is
10 irrelevant to a “newly acquired information” analysis. Opp’n at 47 (95% CI: 0.54,
11 3.06). Moreover, plaintiffs’ argument is at odds with their experts’ own testimony.
12 Dr. Wells—the only plaintiffs’ expert that actually reviewed EXSCEL clinical trial
13 data—used the intention-to-treat data (15 exenatide/16 placebo). No expert in this
14 litigation concludes otherwise. Indeed, both Dr. Wells and Dr. Madigan testified that
15 the most appropriate way to analyze the clinical trial data is to use the intention-to-
16 treat analysis, not the “per protocol” analysis.⁴⁹ According to Dr. Madigan, an
17 intention-to-treat analysis includes “all patients who are randomized” to a treatment
18

19
20 ⁴⁸ Plaintiffs also argue, without any support, that Amylin did not “properly document
21 and follow-up on” a particular case (No. [REDACTED]). Opp’n at 46. As plaintiffs
22 acknowledge, the study report submitted to FDA advised that the patient had been
23 lost to follow up and the study investigator was unable to obtain additional
24 information. *Id.*; see AMYLN07208641 (Opp’n Ex. 51) at 8539. Again, this is a
25 fact that the FDA was aware of, and plaintiffs do not (and cannot) point to anything
26 more that should have been done under the study protocol. Nor do they present a
27 qualified expert who supports this argument.

28 ⁴⁹ Martin T. Wells Deposition Tr. (Jan. 22, 2020) at 127:22–128:21 (relevant portions
attached as Ex. BG to Boehm Supp. Decl.); David Madigan, Ph.D. Deposition Tr.
(Jan. 29, 2020) at 119:20–123:15 (relevant portions attached as Ex. BH to Boehm
Supp. Decl.).

1 and had an adjudicated event occur.⁵⁰ In the words of Dr. Madigan, “if the patient’s
2 in, the patient’s in. You count the events.”⁵¹ This is exactly what Amylin did.

3 **C. Liraglutide (Victoza)**


4 Plaintiffs focus on three pieces of data related to Victoza that they believe
5 constitute “newly acquired information” that could support a CBE labeling change
6 related to pancreatic cancer: (1) a single, benign pancreatic tumor reported in a
7 Saxenda clinical trial,⁵² (2) non-cancer-related findings from several animal
8 experiments, and (3) a single observational study that evaluated the frequency of
9 pancreatic cancer in a population of patients who *did not* take liraglutide.⁵³ Opp’n. at

10 _____
11 ⁵⁰ Madigan 2020 Tr. (Ex. BH to Boehm Supp. Decl.) at 119:20–121:7; 122:9–22.

12 ⁵¹ Madigan 2020 Tr. (Ex. BH to Boehm Supp. Decl.) at 123:13–15.

13 ⁵² Plaintiffs claim that 2014 Saxenda Briefing Book submitted to FDA in advance of
14 its approval was “scrubbed” by FDA from its website. Opp’n at 8. This is not
15 true. The document is included in FDA’s online archives available at:
16 <https://www.fda.gov/about-fda/about-website/fdagov-archive> and searching for
“Saxenda Endocrinologic and Metabolic Drugs Advisory Committee” (last
accessed Sept. 3, 2020).

17 ⁵³ Plaintiffs’ reference to a statement by Novo’s then-CMO, Dr. Alan Moses, Opp’n
18 at 30–31, is both misleading and inaccurate. The statement does not suggest that
19 Dr. Moses, or anyone else with Novo, believed that Victoza causes pancreatic
20 cancer; nor does it suggest that Novo withheld any information from the FDA. As
21 Dr. Moses explained, the statement was provided in an email response to a request
22 for questions that could be asked by the committee members during the LEADER
23 Advisory Committee meeting and, for which, the presenters wanted to make sure
24 they had data available to fully and accurately respond. *See* Alan C. Moses, M.D.
25 Deposition Tr. at 74:17–75:5 (relevant portions attached as Ex. BI to Boehm Supp.
26 Decl.)



1 28–35. As discussed below, these “new” data do not provide any evidence that could
2 have supported a CBE-labeling change related to pancreatic cancer or altered the
3 FDA’s comprehensive analysis of this very issue.

4 **Clinical Trial Adverse Events.** Novo submitted all pancreatic cancer events
5 from its clinical trials to the FDA as part of its regulatory submissions.⁵⁴ Although
6 plaintiffs make vague claims about inconsistencies in how data were summarized in
7 different documents,⁵⁵ *with one exception*, plaintiffs do not dispute that information
8 about the pancreatic cancer events (both in the liraglutide and comparator groups) was
9 provided to the FDA. Opp’n at 34–35.



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17 ⁵⁴ 2018 Liraglutide Periodic Safety Update Report (submitted to the FDA on Feb. 27,
18 2018), NNI-MDL_00476737 (“2018 PSUR”) at 4 (relevant portions attached as
Ex. BJ to Boehm Supp. Decl.).

19 ⁵⁵ While plaintiffs suggest that there are inconsistencies between various data
20 summaries created by Novo, all pancreatic events were submitted to the FDA in
21 the PSUR data. Plaintiffs fail to acknowledge the context for each document is
22 different, including that each was generated for a specific purpose and according to
23 pre-specified inclusion and exclusion criteria. The 2018 PSUR includes all
24 treatment-emergent events identified in completed clinical trials, 2018 PSUR (Ex.
25 BJ to Boehm Supp. Decl.) at 142, while the 2017 internal “Safety Surveillance”
26 summary provides information on all events from both ongoing and completed
27 trials, regardless of whether those events were treatment-emergent or occurred long
28 after treatment was stopped, NNI-MDL_02592351 (Opp’n Ex. 24) at 23.
Application of these distinct criteria resulted in small differences in event counts
between the two documents (4 versus 3 and 2 versus 1), but they did not alter the
overall conclusion.

1 The one exception is a pseudopapillary tumor reported in study NN8022-1839,
2 which plaintiffs allege was a pancreatic cancer that Novo “fail[ed] to report in its FDA
3 submission.” Opp’n at 9. This is not true. As a threshold matter, the tumor in
4 question was *not* a pancreatic cancer—it was a rare, benign (non-malignant) tumor.⁵⁶
5 Further, Novo provided information about this event to the FDA on several occasions,
6 including in the August 2015 PSUR (submitted to the FDA on September 8, 2015)⁵⁷
7 and in the final clinical trial report (which, paradoxically, plaintiffs reference in their
8 Opposition Brief).⁵⁸

9 **Animal Experiments.** Plaintiffs also point to five animal experiments—out of
10 the thousands Novo conducted over the past two decades—they allege had adverse
11 pancreatic findings which were not reported to the FDA. Opp’n at 28–32. As a
12 threshold matter, none of the animals in these experiments were found to have
13 pancreatic cancer or pre-cancerous lesions, despite often being treated with liraglutide
14 doses well above those used in clinical practice.⁵⁹ See *infra* pp. 32–35. As such, these
15

16 ⁵⁶ The results of the biopsy in this case showed that the tumor was “negative for
17 malignancy” and thus not a pancreatic cancer. Clinical Trial Report, SCALE –
18 Obesity and Pre-diabetes (Jan. 18, 2016), NNI-MDL_01544708 (“SCALE CTR”),
19 at 425 (relevant portions attached as Ex. BK to Boehm Supp. Decl.); Expert Report
20 of Daniel O. Scharfstein, ScD (Dec. 16, 2019) at 11–12 (relevant portions attached
21 as Ex. BL to Boehm Supp. Decl.).

22 ⁵⁷ See 2014–2015 PSUR/PBER Submission Letter to FDA (Sept. 8, 2015), NNI-
23 MDL_00068479 (attached as Ex. BM to Boehm Supp. Decl.).

24 ⁵⁸ See SCALE CTR (Ex. BK to Boehm Supp. Decl.) at 425.

25 ⁵⁹ Scientific Report (Oct. 5, 2001) (Opp’n Ex. 12) at 13 (“Histological findings in
26 NN6622 and NN2211 combination study in ZDF rats: NN622/NN2211 decrease
27 the relative beta-cell mass and induce focal pancreatic regeneration. NN622 alone
28 increases the sporadic occurrence of acinar hyperplasia.”); Study Report, NNI-
MDL_00725778, “Effect of liraglutide on diabetic nephropathy in the db/db
model” (“JYNR130201 Study Report”) (attached as Ex. BN to Boehm Supp.
Decl.); ADPC140901, NNI-MDL_00731756, “Effect of PYY analogue in
combination with Liraglutide on glucose dynamics in sub-chronically dosed ZDF

1 experiments do not provide any evidence liraglutide causes or contributes to the
2 development of pancreatic cancer in humans and do not constitute “newly acquired
3 information” relevant to the pancreatic cancer issue.⁶⁰ To this point, it is telling that
4 plaintiffs’ own experts do not address any of these studies in their reports, nor do they
5 rely on their findings as evidence relevant to the causation issue. Moreover, as
6 discussed below, similar pancreatic findings were reported in other experiments and
7 were considered by the FDA as part of its evaluation of the totality of the evidence on
8 the pancreatic safety of incretin-based therapies (including pancreatic inflammation
9 and acinar hyperplasia).⁶¹

11
12 rats” (“ADPC140901 Protocol”) (attached as Ex. BO to Boehm Supp. Decl.); NNI-
13 MDL_0197007, “Effect of combination treatment with FGF21 and liraglutide on
14 bone mineralization in DIO mice” (“KLyk131001 Study”) (attached as Ex. BP to
15 Boehm Supp. Decl.); Study Report, Liraglutide NNC 0090-0000-1170 (Jan. 2013)
16 (Opp’n Ex. 18) (“The effect of liraglutide on pancreatic duct glands and stellate
17 cells in chronically treated male and female ZDF rats.”).

18 ⁶⁰ Novo conducts thousands of animal studies with its different marketed and
19 experimental medications. These studies are reported to the FDA as required
20 under FDA guidelines. Indeed, FDA guidance makes clear the Agency wants
21 manufacturers to use their judgment in submitting data from animal studies,
22 limiting reports to animal findings “suggesting a significant risk in humans” and
23 excluding those that are “too preliminary to interpret without replication or other
24 investigation.” See U.S. Dep’t of Health & Human Servs., *Guidance for Industry
25 and Investigators, Safety Reporting Requirements for INDs and BA/BE Studies*
26 (Dec. 2012), <https://www.fda.gov/media/79394/download> (relevant portions
27 attached as Ex. BQ to Boehm Supp. Decl.). None of the findings discussed satisfy
28 these criteria.

29 ⁶¹ Niels C. Nyborg, et al., *The Human GLP-1 Analog Liraglutide and the Pancreas:
30 Evidence for the Absence of Structural Pancreatic Changes in Three Species*,
31 *Diabetes* 61:5 at 1243–1249 (May 2012) (attached as Ex. BR to Boehm Supp.
32 Decl.); Niels Vrang, et al., *The Effects of 13 wk of Liraglutide Treatment on
33 Endocrine and Exocrine Pancreas in Male and Female ZDF Rats: A Quantitative
34 and Qualitative Analysis Revealing No Evidence of Drug-Induced Pancreatitis*,
35 *Am. J. of Physiology, Endocrinology & Metabolism* 303:2 at E253–E264 (May 15,

Below are brief summaries of each study identified by plaintiffs.

The 2001 ZDF Study. In the 2001 ZDF study, Opp’n at 28–29, Novo attempted to assess whether treating diabetic rats with a combination of two medications (liraglutide and an agent called NN622) could result in healthy regeneration (i.e., healing) of their pancreas.⁶² No adverse pathologic changes were reported in animals treated with liraglutide, and none of the animals developed pancreatic cancer, pre-cancerous lesions, or pancreatitis.⁶³ While evidence of healthy regeneration was seen with combination therapy, no significant effect was observed with liraglutide alone, either in terms of regeneration or acinar hyperplasia.⁶⁴ Further, acinar hyperplasia⁶⁵ (on which plaintiffs seem to focus) is not a new finding. Minor increases in acinar cell size and number occasionally were observed in other animal studies involving incretins, including several of the toxicology studies conducted and

2012) (attached as Ex. BS to Boehm Supp. Decl.); *see also* FDA Assessment (Ex. A).

⁶² NNI-MDL_02599008 (“2001 ZDF Study”) (Opp’n Ex. 12) at 7–8.

⁶³ *See* 2001 ZDF Study (Opp’n Ex. 12).

⁶⁴ *See id.* (Opp’n Ex. 12) at 17–18.

⁶⁵ Acinar hyperplasia means a benign increase in the size of normal, healthy acinar cells; it is not a pre-cancerous or a cancerous condition. Stanford Medicine, *Acinar Cell Nodule of the Pancreas* (original posting Jan. 9, 2008), http://surgpathcriteria.stanford.edu/pancreas/acinar_cell_nodule_pancreas/ (attached as Ex. BT to Boehm Supp. Decl.). In the study, acinar hyperplasia was observed in 1 of 19 animals treated with liraglutide alone. 2001 ZDF Study (Opp’n Ex. 12) at 26. This is not a new finding, as minor increases in acinar cell size and number occasionally were observed in other animal studies involving incretins, including several of the toxicology studies conducted and review by the FDA prior to the initial approval of Victoza and in one of the mice studies discussed by the FDA in its 2014 NEJM Assessment concluding that the totality of the evidence is “inconsistent” with a causal relationship between incretin-based therapies and pancreatic cancer. FDA Assessment (Ex. A) at 796.

1 review by the FDA prior to the initial approval of Victoza and in one of the mice
2 studies discussed by the FDA in its 2014 NEJM Assessment.⁶⁶

3 ***The 2012-2013 PDG Analysis.*** The PDG analysis, Opp’n at 28, 31–32, was a
4 post-hoc, exploratory analysis which attempted to look at the effect of liraglutide on a
5 normal compartment of the pancreas, known as pancreatic duct glands (PDGs).⁶⁷ As
6 discussed in the 2015 briefing and in Defendants’ opening brief, the analysis had
7 significant methodologic problems which precluded forming any reliable conclusions
8 about the effect of liraglutide on PDGs.⁶⁸ Regardless, there were no treatment-related
9 adverse pancreatic effects observed in any of the animals receiving liraglutide.⁶⁹

10 Plaintiffs’ false allegation that Novo intentionally destroyed histology slides
11 and other materials from this study also warrants a response. Opp’n at 29. While it is
12 true that tissues and physical slides were discarded after several years of storage and
13 associated degradation, nearly 2,000 high-resolution digital images reflecting all the
14 pathology and staining were retained.⁷⁰ These digital images (rather than the slides)
15 were used to conduct the original analysis; all of these images were provided to
16 Plaintiffs’ counsel on November 15, 2019.⁷¹

17 ***Studies JYNR130201 & KLyk131001.*** Unlike several other studies conducted
18 by Novo, these experiments, Opp’n at 29–31, were not designed to assess the
19 pancreatic safety of liraglutide and did not include systematic evaluation of pancreatic
20

21
22 ⁶⁶ FDA Assessment (Ex. A) at 796.

23 ⁶⁷ Expert Report of Sarah Thayer, M.D., Ph.D. (Dec. 16, 2019) (“Thayer Report”) at
24 21 (Ex. AT).

25 ⁶⁸ *Id.* (Ex. AT).

26 ⁶⁹ *Id.* (Ex. AT).

27 ⁷⁰ *See* Declaration of Raymond M. Williams (“Williams Decl.”) at ¶¶ 2–3.

28 ⁷¹ *Id.* ¶¶ 2–3.

1 tissue.⁷² As such, the fact that two animals (one in each study) were observed to have
2 an inflamed pancreas provides no reliable information about the pancreatic safety of
3 the medication, and certainly does not suggest that liraglutide causes pancreatitis or
4 pancreatic cancer. Indeed, it is well-recognized that there is a significant background
5 rate of pancreatic findings in rodents, even when those animals are not exposed to any
6 external agents or medications.⁷³

7 **Study ADPC140901.** This study looked at the effect of combining a medication
8 called a PYY analogue with liraglutide on glucose levels in ZDF rats.⁷⁴ [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED] [REDACTED]
12 [REDACTED]
13 [REDACTED] [REDACTED]
14 [REDACTED]
15 [REDACTED]⁷⁷

16
17 ⁷² See JYNR130201 Study Report (Ex. BN to Boehm Supp. Decl.) at 10 (noting aim
18 “[t]o evaluate the effect of liraglutide in prevention of diabetic nephropathy
19 defined as reduction in albuminuria and mesangial expansion”); KLyk131001
20 Study (Ex. BP to Boehm Supp. Decl.) at 12 (noting aim of study was to “evaluate
21 effects of treatment with combination of FGF21 and the GLP-1 agonist, liraglutide
22 on body weight, body composition and on bone mineralization in DIO mice”).

23 ⁷³ Kristina D. Chadwick, et al., *Occurrence of Spontaneous Pancreatic Lesions in*
24 *Normal and Diabetic Rats: A Potential Confounding Factor in the Nonclinical*
25 *Assessment of GLP-1-Based Therapies*, Diabetes 63:1303 (Apr. 2014) (Ex. AU).

26 ⁷⁴ ADPC140901 Protocol (Ex. BO to Boehm Supp. Decl.); see also NNI-
27 MDL00731548 (Opp’n Ex. 15) at 2.

28 ⁷⁵ NNI-MDL00731548 (Opp’n Ex. 15) at 2.

⁷⁶ *Id.* (Opp’n Ex. 15).

⁷⁷ *Id.* (Opp’n Ex. 15).

1 In sum, the 2001 ZDF study and the 2012 PDG analysis found no evidence of
2 adverse pancreatic effects of liraglutide.⁷⁸ The sporadic pancreatic findings observed
3 in the other three studies—even if related to liraglutide treatment (which they do not
4 appear to be)—involve pancreatic inflammation (or pancreatitis), a potential side
5 effect which already is warned about in the labeling for Victoza and all other incretin-
6 based therapies.⁷⁹ Accordingly, none of these animal experiments provide any “newly
7 acquired information” that could support a CBE labeling change related to pancreatic
8 cancer. *See* 21 C.F.R. § 314.70(c)(6)(iii); *McGrath*, 393 F. Supp. 3d at 168; *Utts*, 251
9 F. Supp. 3d at 659–60.

10 **The Humedica Study.** Plaintiffs next turn to the Humedica study. Opp’n at
11 33–34. The Humedica study was an observational study which attempted to estimate
12 the incidence of pancreatic cancer in a population of patients with type 2 diabetes and
13 risk factors similar (at least only to some extent) to those in LEADER.⁸⁰ In addition
14 to its numerous limitations, the study did not evaluate pancreatic cancer risk with
15 liraglutide, *as none of the subjects in the study actually took the medication.*⁸¹ As
16 such, the study does not provide any direct information regarding the risk of
17 pancreatic cancer in patients taking liraglutide. Rather, it offers one estimate of the
18 background rate of pancreatic cancer in a real-world population with type 2 diabetes—
19 an estimate the study authors themselves cautioned was based on an approach that
20 “resulted in notably lower malignancy rates [than other studies],” suggesting their
21 analysis “may have less complete capture of malignancy diagnoses.”⁸²

22 ⁷⁸ *See supra* pp. 32–33.

23 ⁷⁹ *See supra* pp. 33–35.

24 ⁸⁰ Humedica Study Report (May 8, 2015), NNI-MDL_02111320 (“Humedica Study
25 Report”) (Opp’n Ex. 20) at 26.

26 ⁸¹ *Id.* (Opp’n Ex. 20) at 3–4.

27 ⁸² *Id.* (Opp’n Ex. 20) at 26.

1 With that background, we can turn to plaintiffs' claims regarding the study.
2 *First*, plaintiffs allege that Novo "buried" the study data. Opp'n at 34. That is false.
3 The study was publicly posted to the FDA's website, clinicaltrials.gov, in November
4 2015⁸³ and results are publicly available on Novo's website.⁸⁴

5 *Second*, plaintiffs allege that Novo should have compared the incidence rate for
6 pancreatic cancer observed in the liraglutide and placebo arms of the LEADER trial to
7 the background rate estimate from Humedica. Opp'n at 32–34. But, even plaintiffs'
8 own expert Dr. Madigan cautioned that comparing data from an observational study to
9 the results from a closely monitored clinical trial is concerning and refused to draw
10 inferences from the data.⁸⁵ The problem Dr. Madigan refers to—comparing data from
11 two different studies to draw conclusions about causation—can be illustrated with an
12 example. In the Humedica study, the background rate for pancreatic cancer was
13 reported as 0.036 events per 100 patient years.⁸⁶ In 2019, Funch et al. published the
14 results of an observational study evaluating the incidence of pancreatic cancer in
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16 ⁸³ See [https://clinicaltrials.gov/ct2/show/NCT02608853?term=Humedica+diabetes](https://clinicaltrials.gov/ct2/show/NCT02608853?term=Humedica+diabetes&draw=2&rank=1)
17 &draw=2&rank=1 (last visited Aug. 14, 2020).

18 ⁸⁴ See Novo Nordisk Trials, *Estimation of Malignancy Rates within Humedica*
19 *Patient Populations Sampled to be Representative of Liraglutide Initiators and*
20 *LEADER™ Trial Participants*, [https://www.novonordisk-](https://www.novonordisk-trials.com/en/studie/?id=NN2211-4259&arrayList=NN2211-4259,NN2211-3784,NN2211-3577,NN2211-4118,NN2211-1436,NN2211-1499,NN2211-1644,NN2211-1800,NN2211-1698,NN2211-2063,NN2211-1636,NN2211-1464,NN2211-1692,NN2211-3962,NN2211-3917&Conditions=&AgeRanges=&Phases=&SearchTerm=NN2211-4259&Status=&Treatment=&AttachmentTypes=&country=&zip=)
21 [trials.com/en/studie/?id=NN2211-4259&arrayList=NN2211-4259,NN2211-](https://www.novonordisk-trials.com/en/studie/?id=NN2211-4259&arrayList=NN2211-4259,NN2211-3784,NN2211-3577,NN2211-4118,NN2211-1436,NN2211-1499,NN2211-1644,NN2211-1800,NN2211-1698,NN2211-2063,NN2211-1636,NN2211-1464,NN2211-1692,NN2211-3962,NN2211-3917&Conditions=&AgeRanges=&Phases=&SearchTerm=NN2211-4259&Status=&Treatment=&AttachmentTypes=&country=&zip=)
22 [3784,NN2211-3577,NN2211-4118, NN2211-1436,NN2211-1499,NN2211-](https://www.novonordisk-trials.com/en/studie/?id=NN2211-4259&arrayList=NN2211-4259,NN2211-3784,NN2211-3577,NN2211-4118,NN2211-1436,NN2211-1499,NN2211-1644,NN2211-1800,NN2211-1698,NN2211-2063,NN2211-1636,NN2211-1464,NN2211-1692,NN2211-3962,NN2211-3917&Conditions=&AgeRanges=&Phases=&SearchTerm=NN2211-4259&Status=&Treatment=&AttachmentTypes=&country=&zip=)
23 [1644,NN2211-1800,NN2211-1698,NN2211-2063,NN2211-1636,NN2211-](https://www.novonordisk-trials.com/en/studie/?id=NN2211-4259&arrayList=NN2211-4259,NN2211-3784,NN2211-3577,NN2211-4118,NN2211-1436,NN2211-1499,NN2211-1644,NN2211-1800,NN2211-1698,NN2211-2063,NN2211-1636,NN2211-1464,NN2211-1692,NN2211-3962,NN2211-3917&Conditions=&AgeRanges=&Phases=&SearchTerm=NN2211-4259&Status=&Treatment=&AttachmentTypes=&country=&zip=)
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26 [NN2211-4259&Status=&Treatment=&AttachmentTypes=&country=&zip=.](https://www.novonordisk-trials.com/en/studie/?id=NN2211-4259&arrayList=NN2211-4259,NN2211-3784,NN2211-3577,NN2211-4118,NN2211-1436,NN2211-1499,NN2211-1644,NN2211-1800,NN2211-1698,NN2211-2063,NN2211-1636,NN2211-1464,NN2211-1692,NN2211-3962,NN2211-3917&Conditions=&AgeRanges=&Phases=&SearchTerm=NN2211-4259&Status=&Treatment=&AttachmentTypes=&country=&zip=)

27 ⁸⁵ See Madigan 2020 Tr. (Ex. BH to Boehm Supp. Decl.) at 80:12–17, 198:4–201:17
28 ("There are concerns you have about such a comparison... So are there limitations
with such comparisons? You betcha there are, and I'm not considering there are.
I'm just observing, you know, how it turned out.").

⁸⁶ Humedica Study Report (Opp'n Ex. 20) at 6.

1 patients treated with liraglutide.⁸⁷ The incidence of pancreatic cancer events in
2 patients taking liraglutide in that study was 0.021 events per 100 patient years.⁸⁸ A
3 direct comparison of the results from these two observational studies would suggest
4 that liraglutide reduced the risk of pancreatic cancer. Any conclusion drawn from
5 such comparison would be no more reliable than those drawn from a comparison of
6 Humedica and LEADER.

7 *Third*, plaintiffs take issue with the fact that Novo stated in the briefing
8 document for the LEADER Advisory Committee meeting that the “predicted range for
9 the background [rate of pancreatic cancer in a] T2DM population” was 0.05 – 0.08
10 events per 100 PYE, without mentioning the 0.036 number calculated in the
11 Humedica analysis. Opp’n at 32–34. As an initial matter, Novo’s decision to provide
12 a reference range in its formal briefing book for the FDA based on data from three
13 independent, peer-reviewed sources rather than its own internal analysis is entirely
14 reasonable and appropriate. Moreover, Humedica notwithstanding, the incidence rate
15 in LEADER falls within the expected background range as reported in the available
16 literature.⁸⁹ Indeed, the incidence in the liraglutide arm of LEADER was in line with
17 the placebo incidence rate in the Byetta EXSCEL trial (approximately 0.09 events per
18 100 PYE) and in the Januvia TECOS trial (0.07 events per 100 PYE).

19 In sum, none of the information plaintiffs claim Novo withheld from the FDA
20 provides any evidence that Victoza causes pancreatic cancer, nor, for that matter,
21 could support a CBE labeling change related to pancreatic cancer. Ultimately, no

22 ⁸⁷ See Donnie Funch, et al., *Liraglutide Use and Evaluation of Pancreatic Outcomes*
23 *in a US Commercially Insured Population*, Diabetes Obes Metab. 2019:1–12
24 (attached as Ex. BU to Boehm Supp. Decl.).

25 ⁸⁸ *Id.* (Ex. BU to Boehm Supp. Decl.) at 6.

26 ⁸⁹ Thayer Report (Ex. AT) at 25–26. In fact, as plaintiffs acknowledge, the
27 Humedica estimate falls squarely within the reference range provided in the 2018
28 PSUR (0.01–2.4 per 100 person years) provided to the FDA, which is based on a
larger data set, including 14 independent, peer-reviewed sources.

1 amount of cherry-picking of study findings by plaintiffs’ counsel, or allegations about
2 what the FDA might do with some specific piece of data, can alter what the FDA has
3 done and continues to do to this day. Considering the FDA’s comprehensive review
4 of the evidence over the past decade, its repeated conclusions about the absence of a
5 causal relationship, and its labeling mandate under FDAAA, FDA would not approve
6 a pancreatic cancer warning for Victoza or for any other incretin-based therapy.

7 **CONCLUSION**

8 For the reasons set forth above, plaintiffs’ claims are preempted. First, adding a
9 pancreatic cancer warning to the labeling of incretin-based therapies would
10 “irreconcilably conflict” with the FDA’s conclusion that such a warning is not
11 substantiated by available scientific information. Second, plaintiffs do not identify
12 “newly acquired information” that would satisfy regulatory requirements for
13 submitting a proposed labeling change in the first place. Defendants respectfully
14 request that this Court grant summary judgment on all counts on the basis of conflict
15 preemption.

16
17 September 4, 2020

Respectfully submitted,

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